

What is claimed is:

1. A multicolor LED lamp bulb comprising:

a hollow lamp body extending along a central axis;
the lamp body including a substantially tapered and
symmetrically-shaped intermediate portion, a longitudinal portion
integral to a proximal end of the intermediate portion extending
a predetermined distance therefrom, and a stem portion
substantially cylindrical in shape extending along the central
axis, a proximal end of the stem portion being integral to a
distal end of the intermediate portion;

a lens in a watertight and hermetically sealed
engagement with an outside surface of the longitudinal portion,
the lens encapsulating a proximal end of the longitudinal
portion;

a plurality of different colored light emitting diode
(LED) bulbs mounted in a predetermined spaced-apart arrangement
on a circuit board wafer disposed proximate the intermediate
portion proximal end, the circuit board wafer being secured
inside the lamp body wherein the circuit board wafer is normal to
the central axis of the lamp body;

a controller circuit in electrically operative
communication with predetermined arrays of the plurality of
different colored LED bulbs wherein the predetermined arrays of
the plurality of different colored LED bulbs activate at
predetermined sequences for predetermined time intervals; and

the controller circuit further being electrically connected to a conventional screw-type base, the screw-type base being affixed to the stem portion and adapted to engage a conventional lamp socket.

2. The multicolor LED lamp bulb according to Claim 1, wherein the controller circuit includes a rectifier circuit for converting a 12 volt-ac source applied to the LED lamp bulb through electrical connections in the screw-type base to a 12 volt-dc circuit for supplying electrical power to the arrays of the plurality of different colored LED bulbs.

3. The multicolor LED lamp bulb according to Claim 1, wherein the lens includes a grid of grooves in opposite sides of the lens, the grooves on one side being oriented approximately 90° from a direction of the opposite side grooves.

4. The multicolor LED lamp bulb according to Claim 1, wherein the controller circuit is integral to the circuit board wafer with the mounted plurality of different colored LED bulbs.

5. The multicolor LED lamp bulb according to Claim 2, wherein the controller circuit, including the rectifier circuit is integral to the circuit board wafer with the mounted plurality of different colored LED bulbs.

6. The multicolor LED lamp bulb according to Claim 1, wherein the controller circuit is incorporated into a printed circuit board separate from the circuit board wafer with the mounted plurality of different colored LED bulbs, the controller circuit printed circuit board being electrically connected to the

circuit board wafer with the mounted plurality of different colored LED bulbs when joined together.

7. The multicolor LED lamp bulb according to Claim 6, wherein the controller circuit includes a rectifier circuit for converting a 12 volt-ac source applied to the LED lamp bulb through electrical connections in the screw-type base to a 12 volt-dc circuit for supplying electrical power to the arrays of the plurality of different colored LED bulbs.

8. The multicolor LED lamp bulb according to Claim 1, wherein the plurality of different colored LED bulbs include a combination of red, blue and green LED bulbs at a respective ratio of 5:3:3.

9. The multicolor LED lamp bulb according to Claim 8, wherein the plurality of different colored LED bulbs include eight clusters of five red LED bulbs, eight cluster of three blue LED bulbs, and eight clusters of three green LED bulbs, each cluster being in a predetermined spaced-apart arrangement on the circuit board wafer.

10. The multicolor LED lamp bulb according to Claim 5, wherein the plurality of different colored LED bulbs include a combination of red, blue and green LED bulbs at a respective ratio of 5:3:3.

11. The multicolor LED lamp bulb according to Claim 10, wherein the plurality of different colored LED bulbs include eight clusters of five red LED bulbs, eight cluster of three blue LED bulbs, and eight clusters of three green LED bulbs, each

cluster being in a predetermined spaced-apart arrangement on the circuit board wafer.

12. The multicolor LED lamp bulb according to Claim 7, wherein the plurality of different colored LED bulbs include a combination of red, blue and green LED bulbs at a respective ratio of 5:3:3.

13. The multicolor LED lamp bulb according to Claim 12, wherein the plurality of different colored LED bulbs include eight clusters of five red LED bulbs, eight cluster of three blue LED bulbs, and eight clusters of three green LED bulbs, each cluster being in a predetermined spaced-apart arrangement on the circuit board wafer.

14. The multicolor LED lamp bulb according to Claim 1, wherein the longitudinal portion of the lamp body includes a ridge portion extending peripherally around the outside surface of the longitudinal portion, the ridge portion for cooperative engagement with a mating recess portion in an overlapping portion of the lens.